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|-----------------|-------------|----------------------|---------------------|
| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|

09/341,637 09/03/99

H APV30918

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IM22/0521

EXAMINER

KILKENNY, T

ART UNIT

PAPER NUMBER

1733

DATE MAILED:

05/21/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/341,637

Applicant(s)

Beentjes

Examiner

Todd J. Kilkenny

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 15 and 16 have been renumbered 7 and 8.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art in view of Aoki et al and Ichikawa et al. The rejection as stated in paragraph 8 of the Office Action mailed December 11, 2000 is maintained and herein incorporated by reference.

4. Claims 2, 4 – 6, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art in view of Aoki et al and Ichikawa et al as applied to claims 1 and 3 above and in further view of Smith et al. The rejection as stated in

paragraph 9 of the Office Action mailed December 11, 2000 is maintained and herein incorporated by reference.

As to newly entered claim 8, applicant admits on Page 2 of the specification that a problem with extrusion coating processes involving plastic is that a sufficiently high temperature is needed to allow for the migration speed of the adhesion groups within the plastic to be within tenths of a second to enable high coating speeds. Applicant further admits that a simultaneous extrusion process, if done such that the thickness of each extruded coating could be monitored and controlled such that no disturbances could affect the process, would allow for a high enough temperature to promote such adhesion migration speed and therefore an increased coating speed. The process as taught by the Admitted Prior Art in view of Aoki et al, Ichikawa et al, and in further view of Smith et al teaches simultaneous two-sided extrusion-coating with the monitor and control capabilities for when the extruded strip is feed to the substrate, which accordingly would therefore allow for higher temperatures and a higher coating speed.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art in view of Aoki et al and Ichikawa et al as applied to claim 1 above, and further in view of Nishida et al.

It is well known to use cooling rolls in forming plastic strips form extrusion processes as taught for example by Ichikawa et al. However, Ichikawa et al is silent as to the cooling rolls being internally water cooled. It would have been obvious to one of ordinary skill in the art at the time of the invention to have the cooling roll used to form

the plastic strip from the extrusion coating process as taught by the Admitted Prior Art in view of Aoki et al, Ichikawa et al be internally water cooled, since Ichikawa et al teach of a cooling roll and it is well known that cooling rolls can be made cool by internal cooling water as taught for example by Nishida et al (Column 14, lines 9 – 15).

Response to Arguments

6. Applicant's arguments filed March 12, 2001 have been fully considered but they are not persuasive.

7. As to claims 1 and 3 and applicant's remarks regarding the cited prior art, it is acknowledged that Aoki et al, US patent 4,007,078 (hereafter '078), is not directed to coating metal substrates. Furthermore, it is acknowledged that US '078 does not teach leading a plastic strip around a cooling roll, or any other claimed limitation involving a cooling roll, or heating the substrate as addressed in applicant's arguments (1), (2), (3), (5), and (6) in section A of Amendment B, received March 12, 2001. However, the teaching of US '078 is relevant and is applied against the claimed invention as it teaches forming a plastic strip via an extrusion process, monitoring the thickness of the plastic strip, initially feeding the strip to a haul off roll, and upon the elimination of any irregular thickness and/or breadth breaking the strip away from the haul off roll to be presented for further processing. This method allows for a continuous process of in-situ casting of a plastic strip while enabling the strip formation to reach a steady state with the desired characteristics before further processing. This is recognized by the

Examiner as applicant's claimed improvement over the admitted prior art in extrusion coating metal substrates with plastic.

As to Ichikawa et al and US patent 4,994,130 (hereafter '130), it is acknowledged as remarked by applicant in section B of Amendment B that the reference teaches coating an extruded plastic strip with metal. However, Ichikawa et al is applied as a reference as it too teaches that the extruded plastic may be wound up on a haul off roll prior to bonding so as to be able to separate the extrusion process from the bonding process. Furthermore, US ' 130 teaches forming the plastic by in-situ casting wherein the plastic is extruded and lead around a cooling roll, and teaches heating the metal to promote lamination with the plastic upon contact.

Applicant's argument that Aoki et al and Ichikawa et al cannot be combined is not persuasive. Neither Aoki et al nor Ichikawa et al are used to modify the other, but rather both references are used to further teach upon the admitted prior art and that applicant's improvement over the admitted prior art (the concept of allowing the plastic strip formation to reach steady state before coating it to a metal substrate to allow for high speed coating while maintaining a continuous process) would have been obvious to one of ordinary skill in the art at the time of the invention.

As to the mechanical means claimed by applicant to carry out the intended switch of the plastic strip from the haul off roll to the metal substrate, it would have been readily appreciated by one mechanically skilled in the art based on the switching mechanism of Aoki et al (Element E) as means to lead the plastic strip (B') away from further processing in an open position and then to lead the plastic strip to further

processing in a closed position (Aoki et al Column 4, line 47 – Column 5, line 7), to provide for opening and closing a press laminating roll when laminating a plastic film to a metal substrate. Again, as stated in Office action mailed December 11, 2000 and not addressed by applicant, it is considered well known to provide for opening and closing press laminating rolls to facilitate start-up in a number of laminating procedures.

As to dependent claims 2, 4, 5, and 6 and applicant's argument that it is improper to combine Smith with either Aoki et al and/or Ichikawa et al, it is noted that the teaching of Smith is not used to modify the teachings of Aoki et al or Ichikawa et al, but rather to further teach the claimed limitations in accordance with the admitted prior art.

Applicant's admission that extrusion coating processes for plastic strips and metal substrates are known is the primary reference for the rejection and the teachings of Smith are used to show that applicant's claimed limitations in claims 2, 4-6, and 8 for coating a metal substrate with a plastic strip through an extrusion process are also known.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection for claim 7 presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

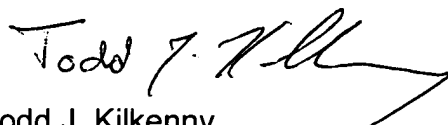
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within


TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Todd J. Kilkenny** whose telephone number is **(703) 305-6386**. The examiner can normally be reached on Mon - Fri (9 - 5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Todd J. Kilkenny
May 17, 2001


JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300